Content Management – How does it apply to Oracle E-Business Suite?

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OVERVIEW:

ERP applications do a great job at managing structured data, which is the data that resides in databases, typically related to transactional information. However, approximately 80% of the average organization's data is unstructured (images, Microsoft Office documents, email, etc…), as research from AIIM (Association for Image and Information Management) indicates. Content Management systems are designed to manage unstructured data much as ERP systems manage structured data. In most organizations, these two information sources are completely separate. By combining these two islands of information, organizations can move to the next levels of efficiency and compliance.

The key to better utilization of an organization's data is using it within the proper context. For example, invoice images need to be associated with the corresponding invoice record within the ERP system. Spreadsheets with journal entries need to be connected to a batch within the General Ledger system. By properly linking structured data within an ERP system to corresponding unstructured data, organizations can truly leverage all of their Information assets to be more efficient and comply with today's stringent government regulations such as Sarbanes Oxley and the Health Insurance Portability and Accountability Act (HIPAA).

This paper outlines the benefits of a tight integration, linking Content Management systems with the Oracle E-Business Suite (EBS). Oracle EBS is a fully integrated, comprehensive suite of business applications for the enterprise. The solution provides Oracle EBS users with direct access to documents stored within leading Content Management repositories like those from Oracle, IBM, OpenText and EMC. Users can access content directly from the native Oracle EBS screens utilizing standard Oracle attachment functionality. The integration leverages standard Oracle workflows and can be configured for all EBS Modules. Specific document examples include: AP (Invoices), HR (W4s, resumes, HIPAA forms, personnel reviews) GL (journal entries), Projects (Contracts), etc.

*Please Note – This paper is a very high level overview of using Content Management software in conjunction within the Oracle EBS applications. It is not intended to provide a thorough explanation of capture, Optical Character Recognition (OCR), Imaging or other components of ECM systems.

BENEFITS OF IMAGE ENABLING ORACLE E-BUSINESS SUITE:

Unstructured documents are part of every transaction any organization undertakes. The use of electronic content management solutions in conjunction with Oracle EBS ensures that the documents are appropriately saved in a secure storage facility. With the ability to access the documents through the Oracle EBS modules, information needed is available for quick resolutions to everyday issues, as well as available for audits and to meet compliance requirements.

Image enabling of the Oracle EBS should include more than just AP invoices, which is available from many vendors in the market. What about all of the other documentation that relates to Oracle EBS transactions? In order to improve employee productivity and effectiveness and to address compliance issues, documentation supporting all types of EBS transactions should be maintained. General Ledger

supporting documentation for journal entries is always something that is either not kept or is stored in someone's file drawer at their discretion.

HR files are typically maintained within a secure area in the company, but are frequently needed by managers, HR insurance benefit directors, and sometimes the legal department. Are the files always put back in their appropriate place without any documents being lost? Can those documents be accessed by each group that needs them at the time they are needed or are copies of those documents floating around the organization opening the company to legal risk?

There is a significant amount of documentation that is kept for Project Costing and Billing that has to be kept for a certain length of time, but where is all of that documentation stored? Is everyone who is authorized to access the data able to find it or is someone who is not authorized to access able to get it?

Manufacturing also has significant amounts of paper documentation. How is it stored and accessed? What about the vendor and customer contracts on file, and any vendor or customer correspondence?

TRADITIONAL IMAGE ENABLING IN ERP:

Oracle has provided a well needed solution to Oracle EBS users by providing the attachment functionality within almost all of the forms. This functionality can be used to store all of the above mentioned documentation. The use of this functionality can to be enabled within Oracle EBS for the various areas but requires a manual process to be completed to attach these documents. And there is much speculation about the effectiveness of storing documentation within the transactional database relating to backups, performance, etc.

But the greatest concern of this approach is how do other users of the information obtain access to the documentation? The typical solution for this need is to email the attachment to the outside user, print down a copy of it, or the additional user would need an inquiry license to access this information directly from the Oracle forms. This causes multiple versions of the same document to be created and circulated through-out the company which is difficult to determine which is the 'real' document that can be used by the auditors or, hopefully not, the legal council for a federal or civil action. The bottom line is, it introduces risk to the company.

Other companies have tried to address this concern by providing stand alone solutions that typically store AP invoices in a separate repository. Some of them have also tried to go the next step of storing other types of documents as well. However, the issues with this approach are that they typically require some type of customization to Oracle EBS, additional client software, screen scraping for access to the data or the users still have to have an Oracle inquiry license to access the data. Sometimes there is access to the data through another portal for the non-Oracle users, but the documents still have to be manually attached to the transactions within Oracle EBS or the metadata (keyword information entered to describe/index documents that allows for their subsequent retrieval) has to be manually entered into the content management systems.

SOLUTION OVERVIEW:

The solution that is being presented in this paper is one that fully supports leading Content Management solutions, yet provides standard, supported, and upgradeable Oracle methods for attaching and linking content to the Oracle EBS transactions.

It uses standard Oracle responsibility level security within Oracle EBS, and as the documents are stored within a separate Content Management repository, other users can access the data securely through the Content Management viewer based on the access levels defined.

This solution also allows documents to be attached to Oracle EBS workflows to allow other users of the system to review the documents for approve, etc.

WHAT IS CONTENT MANAGEMENT SOFTWARE?

Content Management is traditionally considered the electronic storage of documents within a separate repository which can be a file system or a database. Documents are created and revised within the control of the content management system. There are library services which provide check-in and check-out services along with version/revision control. Documents are classified or indexed using information that can be used to identify the document (metadata), and there is a search capability which supports the access to the documents according based upon their security.

WHAT IS ENTERPRISE CONTENT MANAGEMENT (ECM)?

ECM is an integrated suite of products which provide not only Content Management, but other business level functionality as well. Typical ECM suites provide an array of functionality to manage, collaboration, publish and automate content or document-based functions. Some consider this acronym to be only related to Enterprise deployments, but in reality, it is implementing a Content Management System with the ability to deploy the additional products discussed below for a department at a time, but with the Enterprise needs in mind. This requires that when key metadata regarding documents, images, XML files, etc. are defined, the process should include how the other departments within the organization will need to access or utilize the data.

The following modules are typically included in various ECM Systems to allow companies to take advantage of additional functionality across the enterprise as needed.

Records management (RM) is the systematic control of records throughout their lifecycle. Not all documents are considered "Records" as they may not be needed to support any business activity. A record is typically defined to be a document that reflects the day-to-day function of the business. An invitation to lunch from an old friend is most likely not a business record. An invitation from a business client may well be a record, especially if it is to discuss company business. Records have to be defined by policies and procedures to support what records are to be maintained and their retention policy. Records are information assets that are valuable to an organization. Records management ensures that information needed is retrievable, authentic and accurate.

These 'Records' can be physical paper that may be scanned (contracts, invoices, supporting documentation for transactions, etc.) or information stored in electronic format (structured databases, data stored within a Content Management system, data stored on a PC hard drive, as well as content available on a Web site).

Email Management supports the capture of selected email messages according to pre-defined policies and procedures into a Records Management system.

Business Process Management (BPM) controls the flow of work throughout a business by streamlining, automating and optimizing business processes. It supports business process flows that require application to application communication, or document centric workflows with human interaction on an as needed basis, as well as non-document centric workflows.

eForms enable users to create and manage online forms that appear the same as hard-copy paper forms, yet are more advanced, easier to use, and are less costly to implement. eForms help reduce data entry time, improve data accuracy, and are the first step in streamlining and accelerating transaction processing. Examples include Health Insurance forms such as those required by the Health Insurance Portability and Accountability Act (HIPAA).

Web Content Management is a content management system with additional features to ease the tasks required to publish Web content to Web sites. These systems are often used for storing, controlling, versioning, and publishing industry-specific documentation such as news articles, operators' manuals, technical manuals, sales guides, and marketing brochures.

Collaboration Tools promote more effective and efficient group decision-making by removing barriers between people, data and processes. It provides the contextual framework and collaboration tools, including discussion forums, live meetings and interactive polls, to enable group members to share information and participate in processes to facilitate group decision-making in a secure environment.

Per an article in the AIIM (Association for Image and Information Management) magazine by Doculabs regarding ECM in 2007: "The sheer volume of unstructured content that organizations now produce is helping to making ECM a significant priority. Organizations might previously have deployed one (or more) software products to individual departments to meet their specific content management needs. But they are now recognizing that content management is an enterprise-wide need, and that the business benefits and the economies of scale of ECM technology can be truly realized only with an enterprise-wide deployment. The result is that CIOs are now coming to regard ECM as not just a niche application, but rather as an infrastructure investment."

Companies can still just buy Content Management software, but it should be a system that allows you to consider how other departments within the company can become more effective if they too can access the documentation related to Oracle EBS transactions, customers and vendors. Even if you do select an ECM System, you can still just purchase the Content Management piece of the software knowing that you can expand into the use of other products as necessary.

BENEFITS OF ORACLE EBS LINKED TO CONTENT MANAGEMENT SYSTEM:

This paper has covered why it is very beneficial to image enable the Oracle EBS applications. It has also covered the benefits of using external Content Management software instead of storing the data in the Oracle E-Business Suite transaction table. And it has discussed that with the purchase of a Content Management system that has additional optional integrated ECM products, you can later expand the functionality of the system selected based on the needs of the company.

But the big question is, how do we go about integrating the Oracle EBS with an external Content Management system without having to customize the software, add thick client software, or use the old screen scraping technology?

The solution that we developed is really rather simple in terms of design. We utilize the existing Oracle EBS attachment functionality and provide a Web service which supports the linking of the documents stored in a Content Management system. The benefits of using this type of solution is that Oracle EBS applications can be upgraded without having to make any major modifications to adjust for forms that have been customized. Documents can more easily be captured through various methods. The images can be paper based documents which are scanned and processed through capture software, they can be faxed documents, system reports, XML documents, or documents created within one of the Microsoft Office applications like Microsoft Word and Microsoft Excel documents.

This solution allows documents stored within an ECM system to be available through all image enabled Oracle EBS forms. It does not require additional Oracle licenses for non-Oracle users. They will have the ability to access the documents either from within the Content Management System based on their user access levels or directly from Oracle EBS screens via the native attachment functionality.

The solution also supports Accounts Payable (AP) invoice capture integration where invoice information can be OCR'ed from an invoice using industry leading capture software solutions, validated against the Oracle database, (including Purchase Order line item information), and auto-loaded through the standard Oracle AP Invoice Import process. If AP approval has been implemented, once the invoices have been imported, the workflow can incorporate these images into the email notifications for approval by management which then presents the invoices for auto-payment.

SUMMARY:

As the Technology industry continues to evolve, the selection of a Content Management product or ECM suite of products that meet the needs of the entire organization is imperative. Even if only Content Management is being implemented for the Oracle EBS, this approach provides your company with the proper tools to go forward. One of the major driving factors for ECM is the automation of business process to allow companies to be more effective, accurate and competitive. Another major factor is the use of other ECM modules that assist in guiding companies toward their needed compliance initiatives.

About the Author:

Carol Mitchell has owned and operated C.M. Mitchell Consulting Corporation for over 10 years. She has over 20 years experience selecting, managing and implementing software solutions, with 15 years experience managing and implementing Oracle E-Business Suite applications, and over four years managing projects to define, select, and implement Content Management Solutions. In 2004, Carol oversaw an Enterprise Content Management implementation that included a web portal for loan approval processing that won the FileNet 2004 Innovative Award. Carol is a Certified Information Systems Auditor, a Certified Document Imaging Architect, a member of the Association of Image and Information Management (AIIM) and for 7 years, the coordinator for the Colorado Oracle Applications User Group. Carol actively participates in the various users groups giving presentations and training classes.

ACCESS DOCUMENTS STORED IN EXTERNAL CONTENT MANAGEMENT SYSTEM THROUGH THE ORACLE PAPERCLIP: